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| Application Number | Filed    |
| 07-429093          | 11-17-8  |
| Group Art Unit     | Examiner |

Paper No. 17

Assistant Commissioner for Patents  
Washington, DC 20231

I hereby request access under 37 CFR 1.14(a)(3)(iv) to the application file record of the above identified ABANDONED application, which is: (CHECK ONE)

- ☐ (A) referred to in United States Patent Number 5,340,594 column
- ☐ (B) referred to in an application that is open to public inspection as set forth in 37 CFR Application No.                      filed                      on page      paper number
- ☐ (C) an application that claims the benefit of the filing date of an application that is open to inspection, i.e., Application No.                      filed
- ☐ (D) an application in which the applicant has filed an authorization to lay open the entire application to the public.

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#19

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## United States Patent [19]

Barclay

[11] Patent Number: 5,340,594

[45] Date of Patent: \* Aug. 23, 1994

[54] **FOOD PRODUCT HAVING HIGH CONCENTRATIONS OF OMEGA-3 HIGHLY UNSATURATED FATTY ACIDS**

[75] Inventor: William R. Barclay, Boulder, Colo.

[73] Assignee: OmegaTech Inc., Boulder, Colo.

[\*] Notice: The portion of the term of this patent subsequent to Jul. 14, 2009 has been disclaimed.

[21] Appl. No.: 911,760

[22] Filed: Jul. 10, 1992

## Related U.S. Application Data

[60] Division of Ser. No. 580,778, Sep. 11, 1990, Pat. No. 5,130,242, which is a continuation-in-part of Ser. No. 439,093, Nov. 17, 1989, abandoned, which is a continuation-in-part of Ser. No. 241,410, Sep. 7, 1988, abandoned.

[51] Int. Cl.<sup>3</sup> ..... A23D 9/00

[52] U.S. Cl. .... 426/49; 426/53; 426/601; 435/134; 435/243; 435/946

[58] Field of Search ..... 426/49, 53, 601.2; 435/134, 243, 946

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[57]

## ABSTRACT

A process for the heterotrophic or predominantly heterotrophic production of whole-celled or extracted microbial products with a high concentration of omega-3 highly unsaturated fatty acids, producible in an aerobic culture under controlled conditions using biologically pure cultures of heterotrophic single-celled fungi microorganisms of the order Thraustochytriales. The harvested whole-cell microbial product can be added to processed foods as a nutritional supplement, or to fish and animal feeds to enhance the omega-3 highly unsaturated fatty acid content of products produced from these animals. The lipids containing these fatty acids can also be extracted and used in nutritional, pharmaceutical and industrial applications.

10 Claims, 9 Drawing Sheets

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